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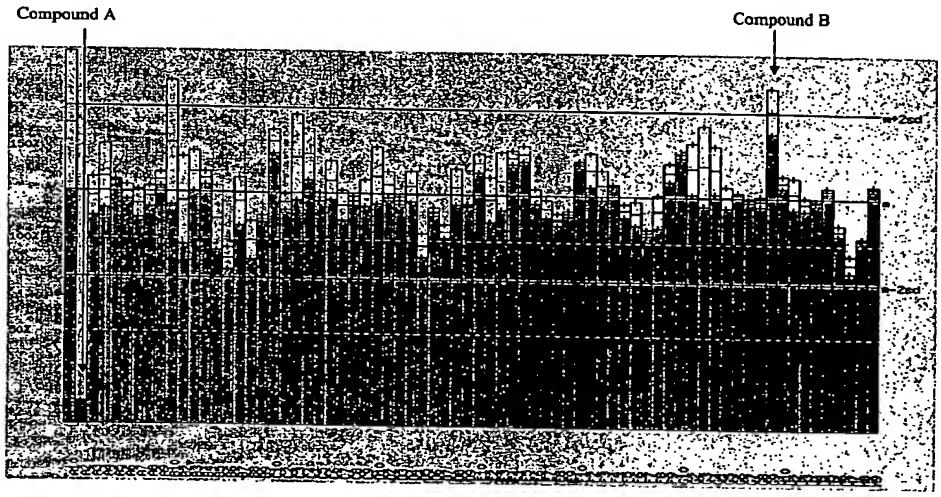
[Continued on next page]

(54) Title: HUMAN G PROTEIN-COUPLED RECEPTOR AND MODULATORS THEREOF FOR THE TREATMENT OF ISCHEMIC HEART DISEASE AND CONGESTIVE HEART FAILURE



(57) Abstract: The present invention relates to methods of identifying whether a candidate compound is a modulator of an orphan G protein-coupled receptor (GPCR). Preferably the GPCR is human. In some embodiments, the GPCR is expressed endogenously by cardiomyocytes. In some embodiments, the GPCR is coupled to Gi and lowers the level of intracellular cAMP. In some embodiments, overexpression of the GPCR promotes survival of cardiomyocytes. In some embodiments, overexpression of the GPCR rescues cardiomyoctes from hypoxia/reoxygenation induced apoptosis. In some embodiments, the GPCR is down-regulated in individuals with congestive heart failure. Agonists of the invention are envisioned to be useful as therapeutic agents for the treatment of ischemic heart disease, including myocardial infarction, post-myocardial infarction remodeling, and congestive heart failure.

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